Article submitted to Harper's, summer 1959

Revolution in Philosophy

Returned 25 Aug 59

HARPER'S MAGAZINE
Editorial Rooms

HARPER & BROTHERS
Publishers

49 EAST 33rd STREET
New York 16

We regret to say, after careful consideration, that we cannot use the manuscript which you have sent us. Thank you for giving us a chance to consider it.

Every issue of Harper's Magazine contains material which, like yours, came unsolicited. However, our editorial space is necessarily limited and we therefore have to decline many manuscripts which are ably written and publishable.

We should like to comment individually on those we cannot accept, but the size of our editorial staff makes this impossible.

The Editors

Theodor H. Nelson
88 Central Park W.
New York 23, N.Y.

"Revolution in Philosophy"

(outline for a longer article)

It may always have been usual for an age's philosophy to be generally unknown to its public, but it is rather surprising that today the doings of the professional philosopher are virtually a secret. Thousands flip over Zen, and Existentialism has passed from the intellectuals to the high-school kids, but the doings of today's real philosophers are known only in universities, and there only down a few corridors.

Perhaps its newness has kept it out of the public eye. Probably its precision, too, makes it discouraging to outsiders; for clearly modern philosophy is not romantic. Some people, including philosophers still on the old tracks, dote on spinning new combinations of the words Essence, Form, Nothingness and Freedom, but the modern professional works with problems basically of a different sort. When he has laid his cards on the table, though, he may be entirely willing to tackle the same old questions with a new slant. There are, of course, many home-grown sages who claim that it has all been said before, but few such have looked at the modern work.

The break with Philosophy's past began in England about the turn

of the century; three men caused it. G.E. Moore, of Cambridge, based much of a lifetime's work on the simple idea that his hand existed. This is not silly; for a chain of brilliant men had down the centuries gone about proving in very unusual and convincing ways that we could never know that the world, or any part of it, existed. They did not mean "know" in any usual sense, however; it was this that Moore endeavored to show. The second man was Bertrand Russell, of Cambridge, who won the Nobel Prize for his book "Foundations of Mathematics," a monumental work showing the connections between math and logic. Although he never proved that they were the same thing, he cemented the bond between philosophy and science indissolubly. The tough brilliance of Russell's work laid the cornerstone of Philosophy of Science-- the study of what scientific statements really mean, the nature of investigation, and what rights scientists have in their use of ordinary language. But it remained for another man to find the premise for a complete departure in thought.

This man was Ludwig Wittgenstein, of Oxford, and his school is called Oxford Analysis. His thought is a simple one with very intricate consequences. Straight out: Words mean what they mean. But because philosophy has never been simple, the road to this thought was a hard one.

Wittgenstein (a colorful figure) began by writing a book in which he said that all talk about language (including the book itself) was meaningless. Realizing this did not make much sense, he pondered for a dozen years. At last he admitted having been completely wrong, and said the following:

Words mean what they mean, and ordinary language used carefully is quite enough for most purposes. Generally speaking, people know what words mean. "What is or is not a cow," to quote his own words,

"is for the public to decide." For any word-- "thought," "Universe," even "God"-- the meaning is just what people think; to find a meaning, study how the word is used, and the different senses it is used in.

If we fail to distinguish senses, great confusions arise. Cause, for instance. What is the cause of a stone's dropping-- is it because George let go of it? Is it gravity? Answer: different senses of the word "cause;" there are half-a-dozen. (In fact, Aristotle listed the senses of "cause." But, unfortunately, Aristotle did not keep on with linguistic analysis, and invented some unusual meanings of his own.

Some words, though, can't be cloven into different senses by simple analysis; they are permanently vague. "Democracy," for instance -- is there a definition? Analysts say no-- for some purposes you may want to restrict a vague word's meaning, for instance with "Let democracy mean, in this conversation, a system of government with universal suffrage and more than one party," but this is not the definition-- and neither is anything else. (We might, of course, attempt to list all the features that democracies have ever had-- but this would not be a definition, it would be a description. The Oxford Analyst believes you can go a long way with descriptions.)

Quite separate from definitions are theories. Do you think all juvenile delinquents are "anti-socially sick?" It could be, but if you don't think it needs to be proven, you are using the phrase "anti-socially sick" as a definition of "juvenile delinquent"-- which the Analyst won't let you do. We ordinarily use the term "juvenile delinquent" to mean "a kid who commits a crime"-- and sickness has nothing to do with it. If they are all sick, then we have to investigate the question like any other theory about the world. But playing

definition-games will only dodge the issue of truth-or-falsity.

Wittgenstein's school flourished immediately. His followers, advocating "sophisticated common sese," at once began applying the new method of analysis to all the old problems. (It is the mark of the Oxford school to begin essays amblingly, "What do we ordinarily mean when we use the word, ...?")

About this time (the '20s and '30s) an opposing school was growing, inspired by Russell's work on logic and math-- the school of the Formalists. (The Formalists of those days called themselves "Positivists," after the "Positive Philosophy" of Comte, a 19th-Century philosopher who sought to chase out all that was unscientific from human thought.)

The "Formalist program," as their plan has been dubbed, was to unite all of science and philosophy in the most precise way, and banish (following Comte) the unscientific and imprecise-- which they called "unprovable" and "metaphysical." The movement waxed strongest in pre-Hitler Austria, where the so-called "Vienna Circle"-- Carnap, Neurath, and their students-- sought to unify human knowledge.

The device they used is most important: the principle that for us to accept a statement as true, the evidence for it must be known. They honed and tried many quasi-mathematical rules for building scientific theories, seeking a precise formula for knowing when a statement is true or false. The bluntest of their tools was the so-called "Verifiability Criterion"--"If you can't tell us how to prove it by experiment, it's meaningless." This certainly makes sense sometimes-- for example, to say "The Universe stops for lunch every day at noon" gives no clue as to how it shall be shown true or false. (But Julius Caesar is clearly different from the Wizard of Oz, so the Verifiability Criterion,

which demanded experiment to prove Caesar existed, was doomed to go soft.)

The Formalists also insisted that statements, to be true and scientific, must have all their terms defined precisely and formally. It is for this reason that most writings of the Positivists, easily mistaken for math texts, are incomprehensible to the layman. Probably the highest tide of the Formalists was their publication, in the '30s, of Neurath's Volume One of "The Encyclopedia of Unified Science" -- the first tug on a net to draw all science together. But, significantly, Volume Two never appeared.

Formalism is receding in Philosophy (though it hangs broodingly over in the social sciences) for several reasons. First, the weakening of the links of "unified science"-- it has been mathematically proven that math cannot be reduced to logic; it is pointless and unnecesaary to try describing chemistry as a part of physics. Moreover, as a tool for describing real scientific technique, in technical advice for building a theory or just giving an explanation, the formalist program has helped as much as a road-map in the woods. They have sought to pattern today's discoveries on those of Newton or Boyle (whose findings were by today's standards fabulously easy)-- instead of helping modern science with their statistical inference and plain guesswork.

Mainly the two schools disagree on the right way to use language. Formalists say there is only one right way, that of exact science; but the analysts insist that while it is fine to describe daybreak in terms of our planet's motion, "the sun also rises," and this is for many purposes an adequate description. The Formalist thinks he has a stronger notion of "truth," since he demands that everything be phrased scientifically. But the Oxford Analyst doesn't throw any

questions out (as the Formalist does;) he cuts them up small enough to be answered, yes or no, piecemeal. The newcomer can get the two sides best in Ayer's dramatic Language, Truth and Logic (the Formalist view) or Warnock's cheery English Philosophy Since 1900 (Oxford Home Library.)

Today, the Philosophy of Science serves as a clearing-house for all fields of scholarship. When scientists or social investigators use careless methods to "prove" their theories, today there are philosophers-of-science in the wings to prod and admonish-- as, for instance, in a recent book of criticisms entitled Psychoanalysis, Philosophy and Science. However, there are still problems distinctly philosophical -- in particular, moral philosophy and aesthetics. (The former deals with the nature of "good," the latter, art and criticism. The nature of "truth" is Philosophy of Science.) The Formalists have little to say about either, scoffing at "emotional reactions." The Analyst is more sympathetic, believing (e.g.) that just as some simple statements are true, some things are really good. (Toulmin, in The Place of Reason in Ethics, tries to show that doing "the good" consists in following the best rules for society. Sadly, finding "the best rules" is only a practical problem.

What about God, and individual freedom, and Being? To a Formalist, it's pure metaphysics. The Analyst is more sympathetic; he sees these as real questions. But none of them is a question of meaning -- they are questions of theory-- what exists in the real universe, politics, and the best way to run your life.

Theodor H. Nelson
88 Central Park W.
New York 23, N.Y.

"Revolution in Philosophy"

(outline for a longer article)

It may always have been usual for an age's philosophy to be generally unknown to its public, but it is rather surprising that today the doings of the professional philosopher are virtually a secret. Thousands flip over Zen, and Existentialism has passed from the intellectuals to hhe high-school kids, but the doings of today's real philosophers are known only in universities, and there only down a few corridors.

Perhaps its newness has kept it out of the public eye. Probably its precision, too, makes it discouraging to outsiders; for clearly modern philosophy is not romantic. Some people, including philosophers still on the old tracks, dote on spinning new combinations of the words Essence, Form, Nothingness and Freedom, but the modern professional works with problems basically of a different sort. When he has laid his cards on the table, though, he may be entirely willing to tackle the same old questions with a new slant. There are, of course, many home-grown sages who claim that it has all been said before, but few such have looked at the modern work.

The break with Philosophy's past began in England about the turn

of the century; three men caused it. G.E. Moore, of Cambridge, based much of a lifetime's work on the simple idea that his hand existed. This is not silly; for a chain of brilliant men had down the centuries gone about proving in very unusual and convincing ways that we could never know that the world, or any part of it, existed. They did not mean "know" in any usual sense, however; it was this that Moore endeavored to show. The second man was Bertrand Russell, of Cambridge, who won the Nobel Prize for his book "Foundations of Mathematics," a monumental work showing the connections between math and logic. Although he never proved that they were the same thing, he cemented the bond between philosophy and science indissolubly. The tough brilliance of Russell's work laid the cornerstone of Philosophy of Science-- the study of what scientific statements really mean, the nature of investigation, and what rights scientists have in their use of ordinary language. But it remained for another man to find the premise for a complete departure in thought.

This man was Ludwig Wittgenstein, of Oxford, and his school is called Oxford Analysis. His thought is a simple one with very intricate consequences. Straight out: Words mean what they mean. But because philosophy has never been simple, the road to this thought was a hard one.

Wittgenstein (a colorful figure) began by writing a book in which he said that all talk about language (including the book itself) was meaningless. Realizing this did not make ~~much~~ much sense, he pondered for a dozen years. At last he admitted having been completely wrong, and said the following:

Words mean what they mean, and ordinary language used carefully is quite enough for most purposes. Generally speaking, people know what words mean. "What is or is not a cow," to quote his own words,

"is for the public to decide." For any word-- "thought," "Universe," even "God"-- the meaning is just what people think; to find a meaning, study how the word is used, and the different senses it is used in.

If we fail to distinguish senses, great confusions arise. Cause, for instance. What is the cause of a stone's dropping-- is it because George let go of it? Is it gravity? Answer: different senses of the word "cause;" there are half-a-dozen. (In fact, Aristotle listed ~~the senses of "Cause."~~ the senses of "cause." But, unfortunately, Aristotle did not keep on with linguistic analysis, and invented some unusual meanings of his own.

Some words, though, can't be cloven into different senses by simple analysis; they are permanently vague. "Democracy," for instance -- is there a definition? Analysts say no-- for some purposes you may want to restrict a vague word's meaning, for instance with "Let democracy mean, in this conversation, a system of government with universal suffrage and more than one party," but this is not the definition-- and neither is anything else. (We might, of course, attempt to list all the features that democracies have ever had-- but this would not be a definition, it would be a description. The Oxford Analyst believes you can go a long way with descriptions.)

Quite separate from definitions are theories. Do you think all juvenile delinquents are "anti-socially sick?" It could be, but ~~Ask~~ if you don't think it needs to be proven, you are using the phrase "anti-socially sick" as a definition of "juvenile delinquent"-- which the Analyst won't let you do. We ordinarily ~~reflect~~ use the term "juvenile delinquent" to mean "a kid who commits a crime"-- and sickness has nothing to do with it. If they are all sick, then we have to investigate the question like any other theory about the world. But playing

definition-games will only dodge the issue of truth-or-falsity.

Wittgenstein's school flourished immediately. His followers, advocating "sophisticated common sese," at once began applying the new method of analysis to all the old problems. (It is the mark of the Oxford school to begin essays amblingly, "What do we ordinarily mean when we use the word, ...?")

About this time (the '20s and '30s) an opposing school was growing, inspired by Russell's work on logic and math-- the school of the Formalists. (The Formalists of those days called themselves "Positivists," after the "Positive Philosophy" of Comte, a 19th-Century philosopher who sought to chase out all that was unscientific from human thought.)

The "Formalist program," as their plan has been dubbed, was to unite all of science and philosophy in the most precise way, and banish (following Comte) the unscientific and imprecise-- which they called "unprovable" and "metaphysical." The movement waxed strongest in pre-Hitler Austria, where the so-called "Vienna Circle"-- Carnap, Neurath, and their students-- sought to unify human knowledge.

The device they used is most important: the principle that for us to accept a statement as true, the evidence for it must be known. They honed and tried many quasi-mathematical rules for building scientific theories, seeking a precise formula for knowing when a statement is true or false. The bluntest of their tools was the so-called "Verifiability Criterion"--"If you can't tell us how to prove it by experiment, it's meaningless." This certainly makes sense sometimes-- for example, to say "The Universe stops for lunch every day at noon" gives no clue as to how it shall be shown true or false. (But Julius Caesar is clearly different from the Wizard of Oz, so the Verifiability Criterion,

which demanded experiment to prove Caesar existed, was doomed to go soft.)

The Formalists also insisted that statements, to be true and scientific, must have all their terms defined precisely and formally. It is for this reason that most writings of the Positivists, easily mistaken for math texts, are incomprehensible to the layman. Probably the highest tide of the Formalists was their publication, in the '30s, of Neurath's Volume One of "The ~~Encyclopedia of Unified Science~~ Encyclopedia of Unified Science" — the first tug on a net to draw all science together. But, significantly, Volume Two never appeared.

Formalism is receding in Philosophy (though it hangs brodingly over the social sciences) for several reasons. First, the weakening of the links of "unified science"-- it has been mathematically proven that math cannot be reduced to logic; it is ~~pointless~~ pointless and unnecessary to try describing chemistry as a part of physics. Moreover, as a tool for describing real scientific technique, in technical advice for building a theory or just giving an explanation, the formalist program has helped as much as a road-map in the woods. They have sought to pattern today's discoveries on those of Newton or Boyle (whose findings were by today's standards fabulously easy)-- instead of helping modern science with ~~their statistical~~ their statistical inference and plain guesswork.

Mainly the two schools disagree on the right way to use language. Formalists say there is only one right way, that of exact science; but the analysts insist that while it is fine to describe daybreak in terms of our planet's motion, "the sun also rises," and this is for many purposes an adequate description. The Formalist thinks he has a stronger notion of "truth," since he demands that everything be phrased scientifically. But the Oxford Analyst doesn't throw any

questions out (as the Formalist does;) he cuts them up small enough to be answered, yes or no, piecemeal. The newcomer can get the two sides best in Ayer's dramatic Language, Truth and Logic (the Formalist view) or Warnock's cheery English Philosophy Since 1900 (Oxford Home Library.)

Today, the Philosophy of Science serves as a clearing-house for all fields of scholarship. When scientists or social investigators use careless methods to "prove" their theories, today there are philosophers-of-science in the wings to prod and admonish-- as, for instance, in a recent book of criticisms entitled Psychoanalysis, Philosophy and Science. However, there are still problems distinctly philosophical -- in particular, moral philosophy and aesthetics. (The former deals with the nature of "good," the latter, art and criticism. The nature of "truth" is Philosophy of Science.) The Formalists have little to say about either, scoffing at "emotional reactions." The Analyst is more sympathetic, believing (e.g.) that just as some simple statements are true, some things are really good. (Toulmin, in The Place of Reason in Ethics, tries to show that doing "the good" consists in following the best rules for society. Sadly, finding "the best rules" is only a practical problem.

What about God, and individual freedom, and Being? To a Formalist, it's pure metaphysics. The Analyst is more sympathetic; he sees these as real questions. But none of them is a question of meaning -- they are questions of theory-- what exists in the real universe, politics, and the best way to run your life.

[A breezy outline of a longer article]

REVOLUTION IN PHILOSOPHY

an age's
It may always have been usual for philosophy to be generally unknown to its public, but now that education it is rather surprising that ~~in the light of today's wide sophistication~~ today the doings of the professional philosopher are virtually a secret ~~from the public~~. ~~For while~~ millenia-old, ~~dating back a century,~~ thousands ~~are flipping~~ Flip over Zen, and Existentialism, has passed from the intellectuals to the high-school kids, but today's the doings of real philosophers are known only in universities, and there only down a few corridors.

Perhaps its newness has kept it out of the public eye.

~~Perhaps its precision makes it distasteful; for modern philosophy is~~ Probably its precision too makes it discouraging to outsiders; ~~certainly precise. Probably its newness, too, has kept it out of the public~~ eye. There are, of course, many home-grown sages who claim that it has all been said before, but ~~it is emphatically the case that~~ For And clearly ~~they have not actively looked at modern work~~ modern philosophy is not romantic. ~~While~~ Some people ~~are~~ dote on ~~the~~ spinning new combinations of the words Essence, Form, Nothingness and Freedom, including philosophers still on the old tracks, the modern professional works with problems basically of a different ~~sort, although~~ but sort. ~~when the words are written~~ Though when he has laid his cards on the table, he is may be entirely willing to tackle the same old questions with a new slant.

~~History: Philosophy since 1900 has been entirely a break with the past.~~

The break with Philosophy's past began in England about

I've been sold before, but I've never looked at the modern work.

REVOLUTION IN PHILOSOPHY

Three Englishmen

~~And to be frank, the break was made in England, by three men, starting at~~ the turn of the century; three men caused it.

G.E. Moore, of Cambridge, ~~xxxx~~ based a lifetime's work on the simple idea much of

that his hand existed. This is not ~~as silly, as it sounds,~~ for a chain of

brilliant men had ~~in four centuries~~ down the centuries gone about proving in very unusual and

convincing ways that we could never know the world, or any part of it, existed. They did not that

mean "know" in any usual sense, however; it was this that Moore endeavored

to show. The second was Bertrand Russell, of Cambridge, who won the Nobel Prize ~~with Whitehead~~,

~~(who has, incidentally, slipped back into old-style philosophy)~~ for a monumental his book "Foundations of Mathematics"?

~~xxxxxxxxx~~ work showing the connections between math~~xxxx~~ and logic.

Although he never ~~succeeded in proving~~ proved that they were the same thing, he

~~xxxxxx~~ cemented the bond between philosophy and science indissolubly.

~~Russell helped to found the~~ The rigor The tough brilliance of Russell's work laid the cornerstone of

Philosophy of Science-- the study of what scientific statements

really mean, the nature of investigation, and what rights scientists have in their use of ordinary language.

But it was left for another man ~~xxxxxxxxxxxxxxxxxxxxxxxxxxxx~~

~~himxxxxx~~ Russell has done several ~~xxx~~ lifetimes of fine work; but it remained for But it

~~xxxxxxxxxxxxxxxxxxxx

one with very intricate consequences. Straight out: Words mean what they mean.

But because philosophy has never been simple, the road to this thought was

a hard one, and the reasoning it opens

Wittgenstein was a colorful man, who did not care to organize what he wrote, merely numbering unrelated paragraphs; for this, and other ~~xxxxx~~ special traits, his following at Oxford in some ways resembles a personality cult. And he did a monumental thing: ~~xxxxxxxxxxxxxxxxxxxxxxxxxxxx~~ he wrote a very weighty book which he "took back," deciding he had been completely wrong. In this first book, ~~xx~~ Tractatus Logico-Philosophicus, he said that all discussion of language was meaningless. This took him to the conclusion that his whole book, which discussed language, was meaningless. ~~xx~~ Like an honest man, he admitted it; ~~xxx xxxxxxxxxxxxxxxxxxxx~~ ~~xxxxxxxxxxxxxxxxxxxxxxxxxxxx~~ but since this sounded wrong, he kept on thinking.

~~xxxxx xxxxxxxxxxxxxxxxxx~~

He wrote nothing for a

(a colorful figure)

Wittgenstein began by writing a book in which he said that all talk about language (including the book itself) was meaningless. ~~But this~~ Realizing this he pondered for a dozen years. did not make much sense, ~~After a number of years, he admitted having~~ At last he admitted having been completely wrong, and ~~xxxx~~ said the following:

Words mean what they mean, and ordinary language used carefully is quite enough for most purposes.

Generally speaking, people know what words mean; ~~the meaning of a word is what people think it is. Therefore, if you are going to define a word, you had better examine how it is used, and not go off trying~~ "What is or is not a cow," to quote his own words, "is for the public to decide." For any word-- ~~"God," "Think,"~~ "thought," "Universe," even "God"-- the ~~definition is~~ meaning is just what people think; to find a meaning, study how the word is used, ~~that which people who know the language WOULD think it is.~~ and the different senses it is used in.

~~What causes confusion, then? It when we try to talk about some subjects? It is in confusing the senses we use a word in. An example is~~ If we fail to distinguish senses, great confusions arise. Cause, for instance

~~cause.~~ What is the cause of a ~~xxxxxxxxxx~~ stone's dropping-- is it because George let go of it? Is it gravity? ~~xxxx~~ Answer: different senses of the word "cause;" there are half-a-dozen, ~~I forget~~. (In fact, Aristotle listed ~~them~~ the ~~kind~~ senses of "cause." But, unfortunately, Aristotle did not keep on with linguistic analysis, and ~~found~~ invented some unusual meanings of his own.)

→ To 4A

~~However, with~~

About this time there became prominent an opposition group of philosophers, ~~The~~ the formalists. They received their strongest impetus from Russell's work, uniting logic and mathematics and the core of the formalist "program" has been the attempt to build a "unified science"-- to bridge all the sciences, ~~with~~

Generally speaking, people know what words mean, but

is not a cow," to quote his own words, "is for the public to decide." For

any word-- "Universe," even "God"-- the definition is not

because George lost go of it? Is it gravity? Exact Answer: different sources

of the word "cause;" there are half-a-dozen. (In fact, Aristotle

listed four. Fortunately, Aristotle did not keep on with linguistic

manipulation and found some unusual meanings of his own.)

the formalists. They received their strongest impetus from Russell's

and the core of the scientific "program" was the attempt to build a "unified

science"-- to bridge all the sciences,

attempt to list all the features that democracy has ever had — but this would not be a definition, it would be a description. The analyst (Oxford) believes you can go a long way with descriptions.)

Quite separate from definitions ~~of words~~ are theories, ~~about~~ ~~and~~ ~~and only~~ the technique of analysis ~~helps~~ you.

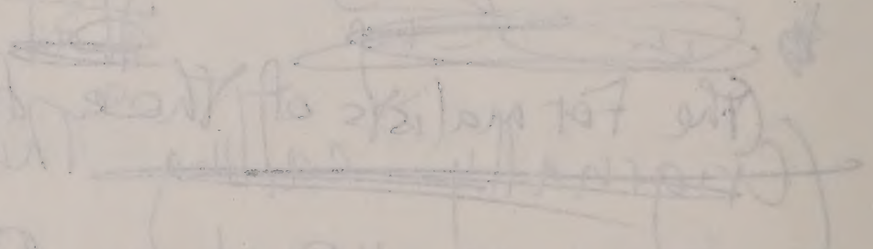
If you think all ~~health-food~~ ~~communists are crazy~~, ~~that a definition?~~ juvenile delinquents are ~~sick, that in an anti-~~ "anti-socially sick?"

It could be, but only if you use "~~juvenile delinquent~~" "anti-socially sick" as a definition — which the Analyst won't let you do. ~~If it's the~~ If you make it a definition, you're just playing word-games; if you let it be a theory, ~~it~~ it can be tested for truth or falsity.

Some words though can't be cloven into different senses by simple analysis; they are permanently vague. "Democracy," for instance — is there a definition? Analysts say no — for some purposes you may want to restrict a vague word's meaning, ~~by say~~ for instance with ~~"Democ~~ "Let democracy mean, in this conversation, a ~~government with~~ system of government with universal suffrage and more than one party" but this is not the definition — and neither is anything else. (We might, of course, ~~find a~~ ~~make a~~

Wittgenstein's school flourished immediately. His followers, advocating "sophisticated common sense," at once began applying the new method of analysis to all the old problems. (It is the mark of the Oxford School to begin essays amblingly, "What do we ~~mean~~ ordinarily mean when we use the word ...?")

About this time (the '20s and '30s) an opposing school was growing. The school of Formalists. (The Formalists of those days called themselves "Positivists," after the "Positive Philosophy" of Comte, a 19th Century Philosopher who sought to chase out all that was unscientific from human thought.)



~~The "Formalist pro~~
~~The ~~cert~~ positivist~~

The "Formalist program," as their plan has been dubbed, was to ~~make that~~ unite all of science and philosophy in the most precise way, and banish (following Comte) the unscientific and imprecise — which they called "unprovable" and "metaphysical." The ~~[illegible]~~ movement waxed strongest in pre-Hitler Austria, where the so-called "Vienna circle" —

~~[illegible]~~

Carnap, Neurath, ~~Hempel~~ and their ~~students~~ ——— sought to unify human knowledge.

The device ~~for~~ they used is most important: ~~The so-called "verification"~~ ~~[illegible]~~ The principle that for us to accept a statement as true, the evidence for it must be known. ~~Seeking~~ They hoped and tried quasi-mathematical rules for building scientific theories, seeking a formula for ~~the acceptance~~ precise knowing when a statement is true or false. The bluntest of their tools

(to A3A)

(To A5A)

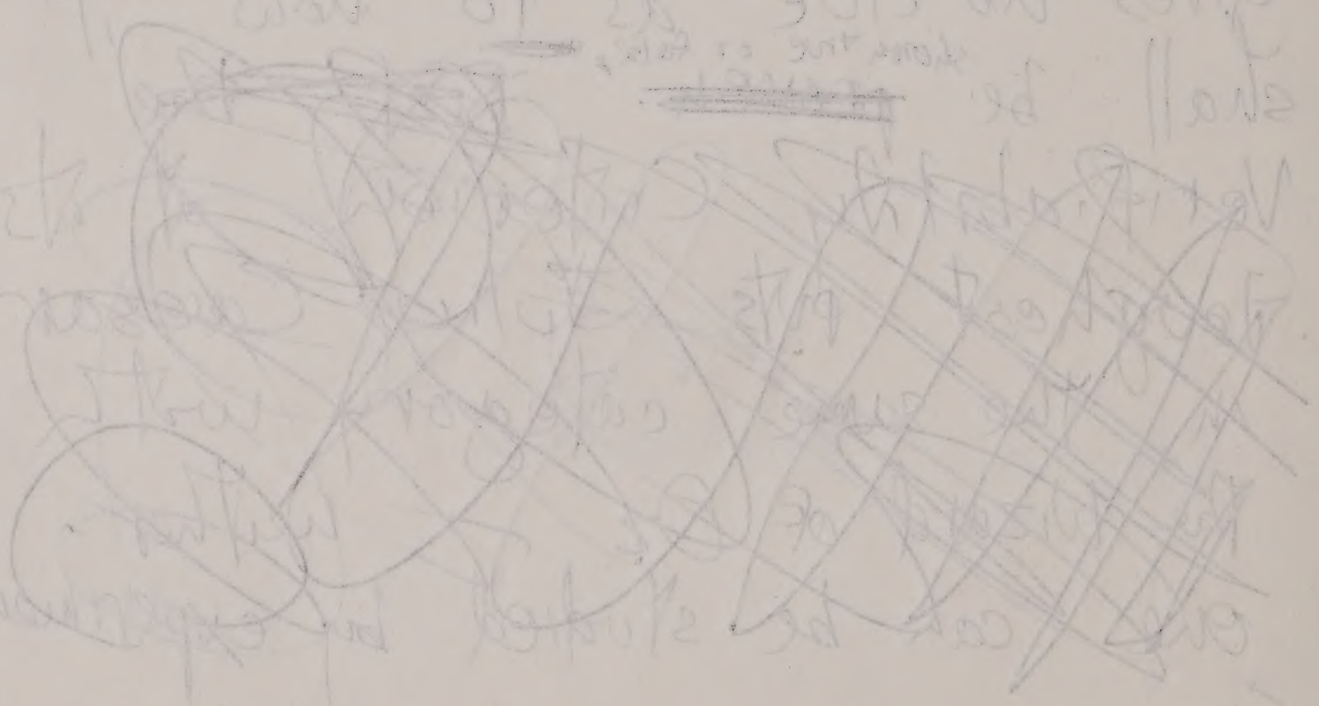
was the so-called Verfiability Criterion — ~~The~~ "if you can't tell us how to prove it by experiment, it's meaningless." This certainly makes sense sometimes — for example, to say "The Universe stops for lunch every day at noon" ~~does~~ gives no clue as to how it shall be ~~proved~~ shown true or false.

The Verifiability Criterion of Meaning

~~doesn't~~ puts Julius Caesar in the same category with The Wizard of Oz — neither one can be studied by experiment,

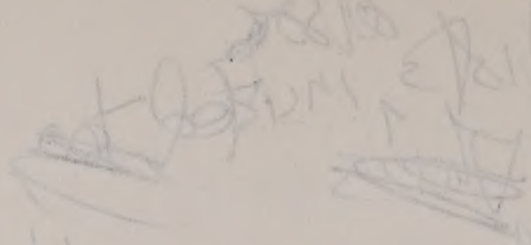
(But Julius Caesar is clearly different from The Wizard of Oz, so the Verifiability Criterion, ~~gradually~~ which demanded experiment to prove Caesar existed, was doomed to go soft.)

ACA



The formalists also insisted that a statement, to be true and scientific, must have all its terms defined precisely and formally. It is for this reason that most writings of the Positivists, easily mistaken for math texts, are incomprehensible to the layman.

No. 11 Probably the highest tide of the Formalists was their publication, in the '30s, of Neurath's volume One of "The Encyclopedia of Unified Science" — the first tug on a net to draw all science together. But, significantly, Volume Two never came out.



Formalism is receding in Philosophy for several reasons. (though it hangs broodingly over the social sciences)

First, the weakening of the links of "unified science" — it has been mathematically proven that math cannot be reduced to logic; it is pointless and unnecessary to try describing chemistry as a part of physics.

~~But more,~~ Moreover, ~~the formalist program has been~~ ie ~~unwieldy where~~ ~~program~~ as a tool for describing real scientific techniques,

~~A~~ In technical advice ~~has proved unwieldy; in seeking to give technical procedures~~ for building a theory or giving an explanation, ~~it~~ the formalist program has helped as much as they seek in the woods, as they have sought to pattern today's discoveries on those of Newton or Boyle (whose findings were by today's standards fabulously easy) instead of helping modern scientists with their statistics, inference and plain guesswork.

A6A

~~The major difference between~~
1 ~~two~~ schools ~~of~~ modern ~~philosophy~~
~~is like a~~

Mainly the two schools disagree
~~of~~ modern philosophy differ ~~on~~ the
ways we should use our language.
~~The~~ formalists ~~hyped~~ on definitions
on the right way to use language.
Formalists say there is only one right way,
that of exact science; ~~but~~
but the analysts insist that while it is fine
to describe daybreak in terms of
our planet's motion, "the son also rises,"
~~and th~~ and this is for many
purposes an adequate description.
~~But it follows, too, that the analyst has~~ a

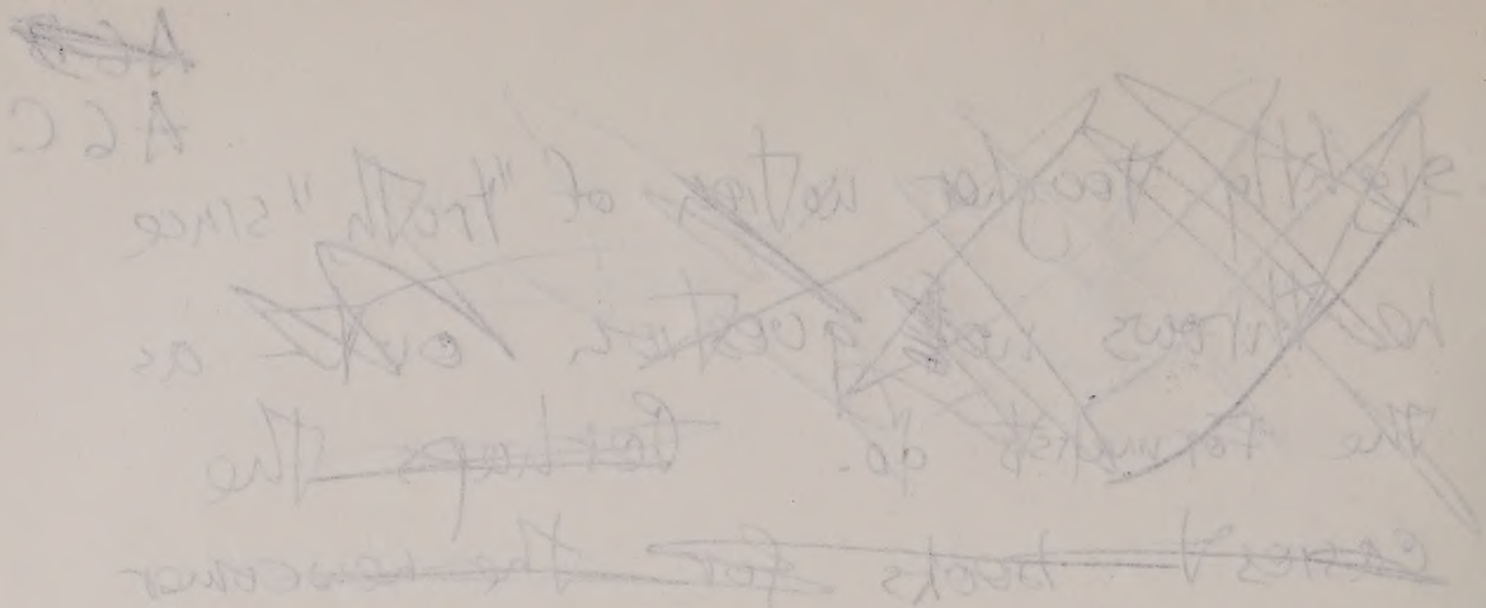
Mainly the two sciences

The ~~Formalist~~ he has ~~thinks have~~ a stronger ~~tougher~~ notion of "truth," since ~~they~~ he demands that everything be phrased ~~as the~~ scientifically. But the Oxford Analyst doesn't throw any questions out (as the ~~Formalist~~ does) but cuts them up small enough to be answered, yes or no, ~~one by one.~~ piecemeal).

~~A6B~~
A6C

~~slightly tougher notion~~ of "truth" since he ~~throws~~ ~~not~~ question ~~out~~ as the ~~Formalists~~ do. ~~Perhaps the easiest books for the newcomer~~

The newcomer can get the two sides best in Ayer's dramatic Language, Truth and Logic (the Formalist view) or Warnock's cheery English Philosophy Since 1900 (Oxford Home University Library.)



~~Although the~~ Today, the Philosophy of Science ~~Through its two major schools~~ serves as a clearing house for all fields of scholarship. ~~more~~ When ~~philoso~~ scientists or social investigators use careless methods to "prove" their theories, today there are philosophers-of-science in the wings to prod and admonish — ~~for instance a new books on the methods of~~ by philosophers

~~psychologists~~ as in, for instance,

a recent book of criticisms entitled Psychoanalysis, Philosophy and Science.

¶ However, there are still prob/ems distinctly philosophical. In particular, moral philosophy and aesthetics. The former investigates the meaning of "good;" the latter, artistic criticism. (The nature of "truth" is Philosophy of Science.) Of today's schools, the Analysts and the Formalists, the Formalist has little to say about either; the Analysts except that they are the blank but scoffs at "emotional reactions." The

~~Recent book~~ of criticisms entitled

~~Reflections~~, Philosophy and Science

~~It~~ However, there are still

problems distinctly philosophical

in particular, ~~the~~ moral ~~and~~

philosophy and aesthetics ~~has~~

~~philosophy~~ The Science investigates

the meaning of "good." The latter

artistic criticism. (The nature of "truth"

is Philosophy of Science.) ~~Of course~~

~~the Aesthetic~~ ~~and the~~

The Formalist ~~has~~ little to say

about either. ~~The Formalist~~

~~Formalist~~ ~~The~~

but ~~he~~ scoffs at "emotional reactions." The

Analyst is more sympathetic, believing (i.e.) ~~believing (for instance)~~ that just some as simple statements ~~may be true~~ are true, some things are really good-

~~Toulmin, for instance, in his~~

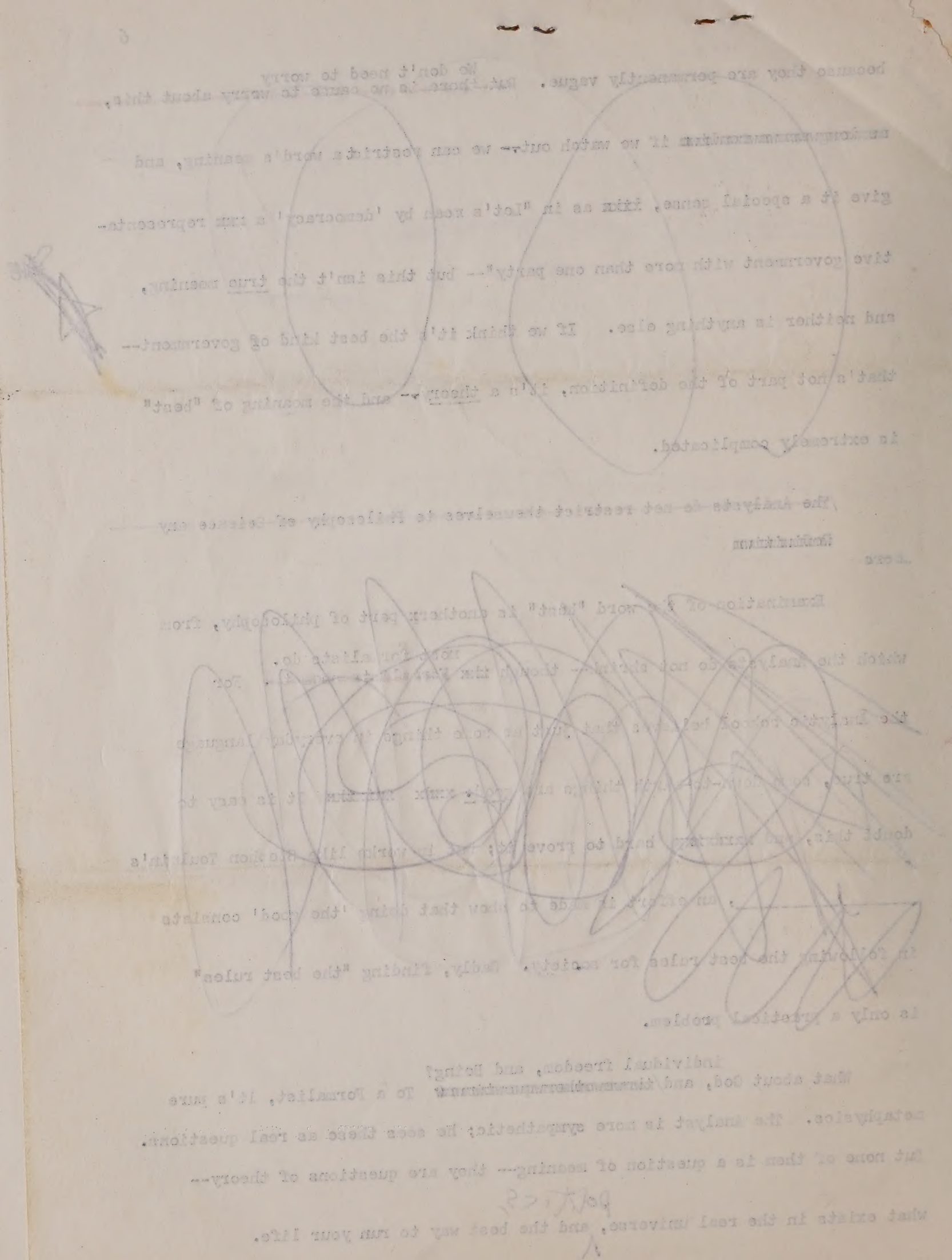
(Toulmin, in The Place of Reason in Ethics, tries to show that doing "the good" consists in ~~finding the~~ following the best rules for society. Sadly, finding "the best rules" is only a practical problem.)

Proverbs is more superficial, believing (1:6)
[illegible] (these) that just
are
as simple statements ~~may be~~ true,
some things are really good-

[illegible]

(Woolman, in The Place of Reason in Ethics)
tries to show that doing "the good"
consists in [illegible]
following the best rules for society.
Such a finding "the best rules" is really
a practical problem.)

because they are ~~permanently~~ vague. We don't need to worry ~~But there is no cause to worry~~ about this, ~~awwww



'Revolution in Philosophy'